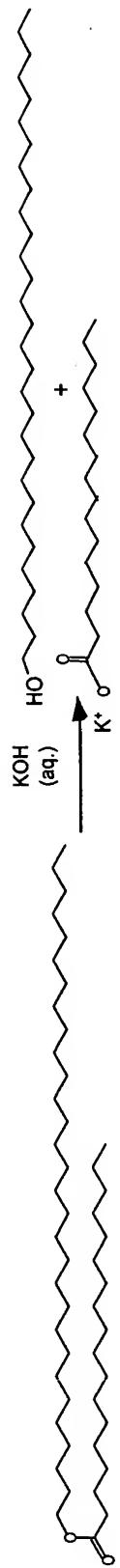


- White Beeswax - Purity ~ 1-6% aliphatic alcohols
- 80°C with 10.7M KOH
- Material solidifies on cooling
- ~ 100% Conversion of esters to aliphatic alcohols

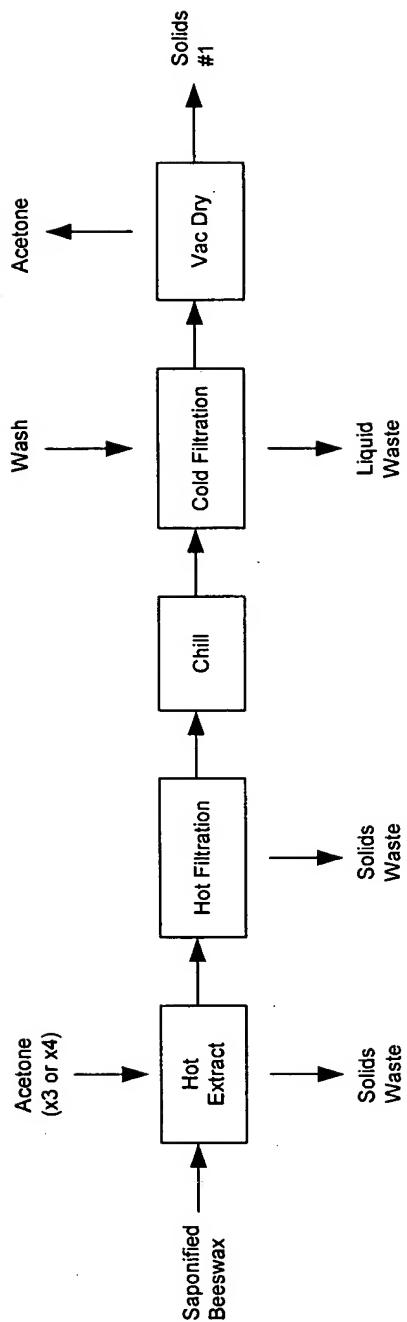
Figure 1



Saponification increases the theoretical yield of the aliphatic alcohols

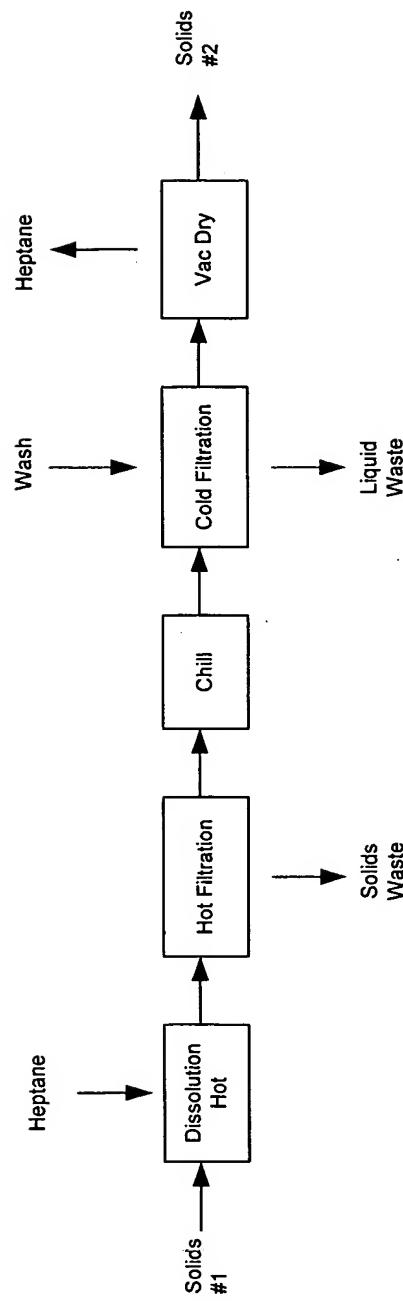
Before saponification - ~1 -6% aliphatic alcohols
After saponification - ~25 -30% aliphatic alcohols

Figure 2



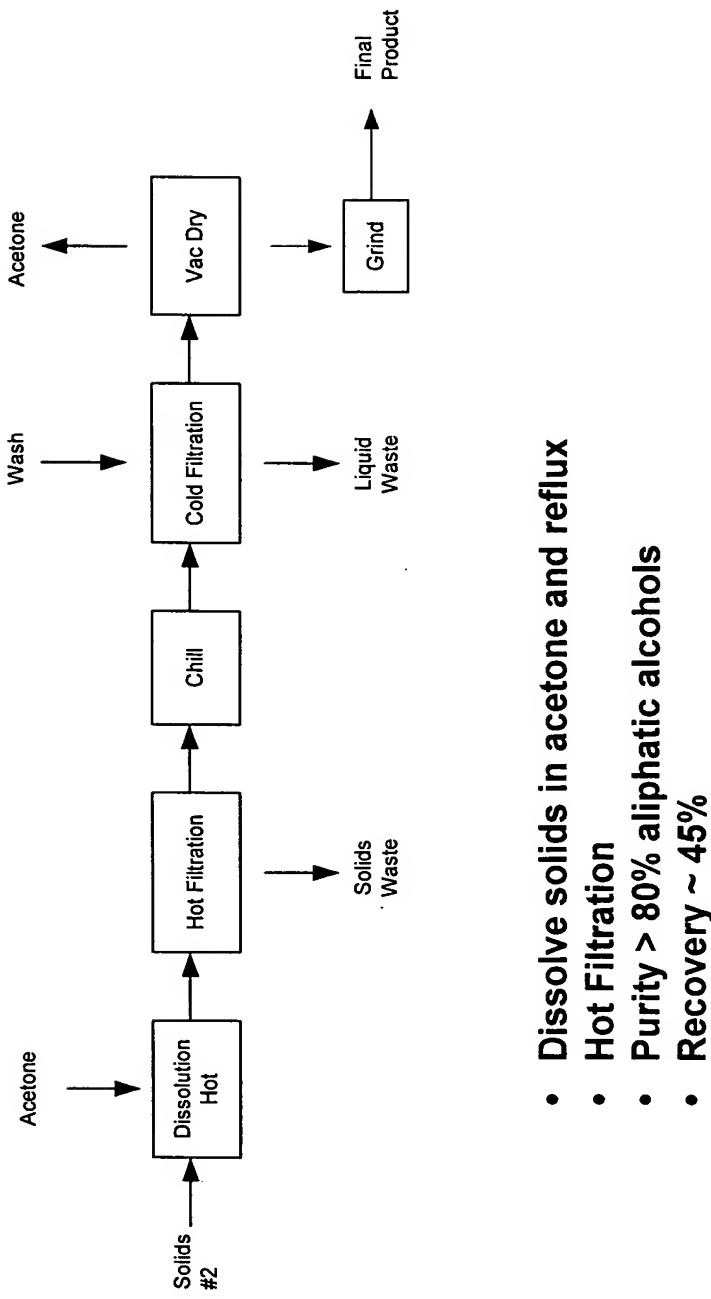
- Exhaustive acetone extraction
- Purity ~ 50% aliphatic alcohols
- Recovery ~ 85%

Figure 3



- Natural paraffins are removed by precipitation of product from heptane
- Purity ~ 65% to 75% aliphatic alcohols
- Recovery ~ 65%

Figure 4



- Dissolve solids in acetone and reflux
- Hot Filtration
 - Purity > 80% aliphatic alcohols
 - Recovery ~ 45%

Figure 5

Comparison of Total Aliphatic Alcohols Contents

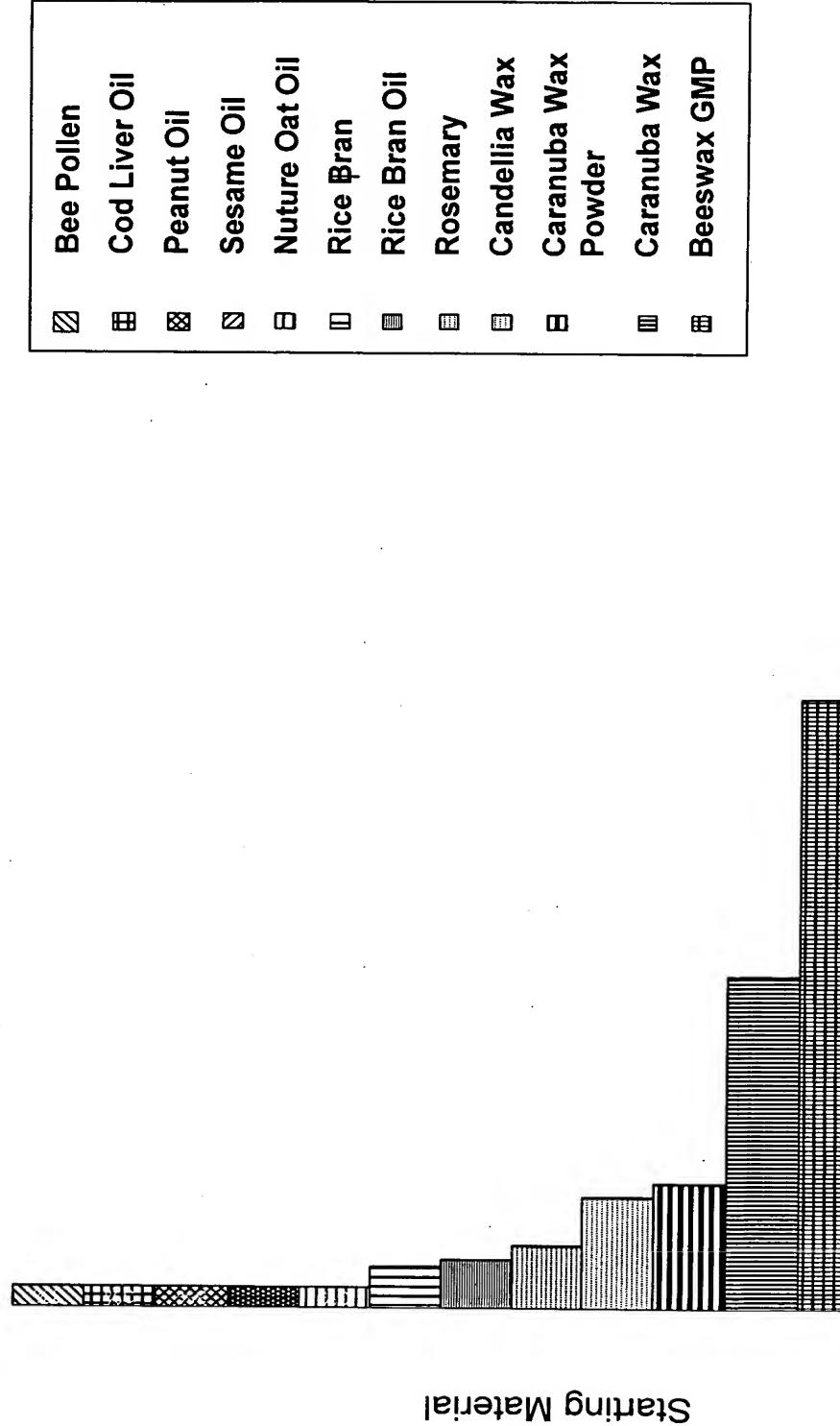


Figure 6

% Aliphatic Alcohol in Starting Material